

FILTER CIRCUIT FOR A BIT PUMP
AND METHOD OF CONFIGURING THE SAME

ABSTRACT OF THE DISCLOSURE

A filter circuit, method of configuring the filter circuit,
and a bit pump and transceiver employing the circuit and method.
In one embodiment, the filter circuit includes a noise prediction
equalizer that generates a noise prediction equalizer coefficient
during activation of the bit pump to reduce an intersymbol
interference associated with a receive signal propagating along a
receive path of the bit pump. The filter circuit also includes a
decision feedback equalizer that generates a decision feedback
equalizer coefficient during the activation of the bit pump to
reduce the intersymbol interference associated with the receive
signal. The noise prediction equalizer is concatenated with the
decision feedback equalizer during showtime of the bit pump to form
a precoder associated with a transmit path of the bit pump.